



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/787,520	02/26/2004	Kent F. Hayes JR.	RSW920030232US1	6473
75532	7590	01/21/2010		
LEE LAW, PLLC				
IBM CUSTOMER NUMBER				
P.O. BOX 189				
PITTSBORO, NC 27312				
EXAMINER				
KEEHN, RICHARD G				
ART UNIT		PAPER NUMBER		
2456				
MAIL DATE		DELIVERY MODE		
01/21/2010		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/787,520

Applicant(s)

HAYES, KENT F.

Examiner

RICHARD G. KEEHN

Art Unit

2456

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 September 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/22)
- Paper No(s)/Mail Date _____

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. **Claims 1-32 have been examined and are pending.**
2. **Claim amendments are not persuasive. Accordingly, this Office action is made FINAL.**

Response to Arguments

3. Applicant's arguments filed 9/23/2009 regarding the previous rejection of Claims 1-32 under 35 U.S.C. 103(a) have been fully considered but they are not persuasive. Applicant's assertion that the Office has not provided a combination of references to teach the limitation "determining on a server, prerequisites for an OSGi bundle to be loaded on a client device, the prerequisites comprising a set of all OSGi bundles that are necessary for utilizing the OSGi bundle..." As stated in the prior Office action, this is disclosed as indicated. However, Examiner has taken a second look at the primary reference Clohessy and has determined that it in fact also discloses the limitation (Clohessy et al. discloses determining by the server, the runtime resources needed on, and to be loaded on the client device - Page 4, ¶ [0139]; ¶ [0038] recites the use of OSGi bundles). Therefore, both references disclose the limitation. Adjustment to the rejection is made in this Office action. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed

invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). Applicant further alleges that the secondary reference McGuire is rendered unsatisfactory for its intended purpose, but without explaining in detail why. Only a mere allegation is argued in the middle of page 15 of Applicant's arguments. Examiner has reviewed both references and sees no reason that one would render the other unsatisfactory or inoperable. In fact, the two references complement each other very well. Both references are geared toward the installation of software on a remote device, from a server to a client. While Clohessy involves the loading of OSGi bundles assembled on the server for the client, McGuire ensures that the server communicates with the client prior to installation and final assembly of the software to be loaded, the client determines any deficiencies (just as claimed) and responds back to the server. The server in Clohessy assembles the final product to be sent to the client. It would have been obvious to combine the two references to ensure that the client would have the necessary resources available to use the bundle, which is what both Clohessy and McGuire teach. The burden is on the Applicant to prove that the references in combination would be unsatisfactory, which Applicant has failed to do.

4. Applicant's remaining arguments with respect to claim amendments for Claims 1-32 have been considered but are not persuasive because they are disclosed by the previously cited references. (See rejection below).

5. Applicant's arguments, see page 12, filed 9/23/2009, with respect to the objection of Claim 24 have been fully considered and are persuasive. The objection of Claim 24 has been withdrawn.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 1-3, 5-11, 13-18, 20-23, 25-27 and 29-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2003/0023661 A1 (Clohessy et al.), and further in view of US 6,493,871 B1 (McGuire et al.).

As to Claims 1, 10, 16 and 25, Clohessy et al. disclose a computer-implemented method, a computer-implemented method, a computerized system for resolving prerequisites, and a program product stored on a recordable medium and executed by a computer, respectively, for client devices in an Open Service Gateway Initiative (OSGi) framework, comprising:

determining, on a server, an OSGi bundle to be loaded on a client device (Clohessy et al. discloses determining by the server, the runtime resources needed on, and to be loaded on the client device - Page 4, ¶ [0139]; ¶ [0038] recites the use of OSGi bundles) the prerequisites comprising a set of all that are necessary for utilizing the OSGi bundle (Clohessy et al. discloses determining by the server, the runtime

resources needed on, and to be loaded on the client device - Page 4, ¶ [0139]; ¶ [0038] recites the use of OSGi bundles);

OSGi bundles (Clohessy et al. discloses determining by the server, the runtime resources needed on, and to be loaded on the client device - Page 4, ¶ [0139]; ¶ [0038] recites the use of OSGi bundles);

identifying a final set OSGi bundles on the server that fulfills the resource limitations of the client device (Clohessy et al. discloses that the bundles needed are identified, and not sent until the client has sufficient resources available - Page 4, ¶ [0043]); and

would not require more client device resources than the current resources of the client device (Clohessy et al. disclose determining the client resources and whether the client has sufficient resources for the bundles - ¶ [0036]) and

would require more client device resources than the current resources of the client device (Clohessy et al. disclose determining the client resources and whether the client has sufficient resources for the bundles - ¶ [0036]).

Clohessy et al. do not explicitly communicating, prior to communicating any of the {software} to the client device, a list of the prerequisites from the server to the client device; receiving a response from the client device, wherein the response identifies any resource limitations of the client device determined by the client device based on a comparison of the list of the prerequisites and current resources of the client device, the resource limitations comprising all prerequisites of the list of the prerequisites that are not currently present on the client device; resolving, upon determining that the list of the

prerequisites that are not currently present on the client device, the prerequisites by identifying a final set {of software to be sent to the client} on the server that fulfills the prerequisites within the resource limitations of the client device; and substituting, upon determining that the list of the prerequisites that are not currently present on the client device, at least one other OSGi bundle that operates within the resource limitations of the client device for one of the OSGi bundles and one of the prerequisites of the list of the prerequisites that are not currently present on the client device. However McGuire et al. disclose

communicating, prior to communicating any of the {software} to the client device, a list of the prerequisites from the server to the client device (McGuire et al. disclose communicating the list from the server to the client – Column 4, lines 17-21);

receiving a response from the client device, wherein the response identifies any resource limitations of the client device determined by the client device based on a comparison of the list of the prerequisites and current resources of the client device, the resource limitations comprising all prerequisites of the list of the prerequisites that are not currently present on the client device (McGuire et al. disclose the client executing the comparison of its resources against prerequisites and sending the needed list to the server - Column 4, lines 21-27); and

resolving, upon determining that the list of the prerequisites that are not currently present on the client device, the prerequisites by identifying a final set {of software to be sent to the client} on the server that fulfills the prerequisites within the resource limitations of the client device (McGuire et al. disclose the server sending the necessary

files to the client based on a response from the client on resource deficiency - Column 4, lines 30-37); and

substituting, upon determining that the list of the prerequisites that are not currently present on the client device, at least one other OSGi bundle that operates within the resource limitations of the client device for one of the OSGi bundles and one of the prerequisites of the list of the prerequisites that are not currently present on the client device (McGuire et al. disclose the substitution of prerequisites - Column 4, lines 32-33; and the server sending the necessary files to the client based on a response from the client on resource deficiency - Column 4, lines 30-37); and

{CLAIM 10 ONLY}

caching information derived from the response on the server (McGuire et al. discloses server caching – Column 13, lines 35-38).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the process of resolving client prerequisites taught by McGuire et al., with sending OSGi bundles from a server to a client taught by Clohessy et al., in order to minimize the amount of data to be downloaded by downloading only those files needed to update the client computer and that will fulfill the client's needs (McGuire et al. – Column 4, lines 13-17 and Abstract).

As to Claim 2, the combination of Clohessy et al. and McGuire et al. discloses the method of claim 1, wherein the method is performed recursively until the prerequisites are completely resolved (Clohessy et al. – Figure 4 shows the recursive

path used to resolve prerequisites, 104-106-108-109-110-112-104-etc. until 114 or END).

As to Claim 3, the combination of Clohessy et al. and McGuire et al. discloses the method of claim 1, further comprising loading the final set of OSGi bundles on the client device if the prerequisites are completely resolved (Clohessy et al. – Figure 4, elements 108 and 114 show loading the final set of OSGi bundles on the client device).

As to Claim 5, the combination of Clohessy et al. and McGuire et al. discloses the method of claim 1, wherein the prerequisites comprise at least one item selected from a group consisting of a service, a package and a computer resource needed by client device (Clohessy et al. - Page 2, paragraphs 0024 and 0025 disclose the prerequisite resources being flash memory and RAM, which are at least one item selected from the group consisting of a service, a package and a computer resource, i.e. computer resources).

As to Claim 6, the combination of Clohessy et al. and McGuire et al. discloses the method of claim 1, further comprising caching information derived from the response on the server (McGuire et al. discloses server caching – Column 13, lines 35-38).

The motivation and obviousness arguments are the same as in Claim 1.

As to Claim 7, the combination of Clohessy et al. and McGuire et al. discloses the method of claim 1, wherein the method is applied in the presence of a low bandwidth or high cost connection between the server and the client device (Clohessy et al. – Page 1, paragraph 0002 discloses that the client device has limited system resources which would include bandwidth related resources such as threads, sockets, memory, RAM, etc. Paragraph 0003 further recites that the client device requires frequent loading and unloading due to the narrow bandwidth as compared to a desktop PC).

As to Claim 8, the combination of Clohessy et al. and McGuire et al. discloses the method of claim 1, wherein the final set of OSGi bundles include OSGi bundles that are identified from a repository accessed by the server (Clohessy et al. – Page 4, paragraphs 0042 and 0043 disclose the process of loading OSGi bundles residing on the server to the client).

As to Claim 9, the combination of Clohessy et al. and McGuire et al. discloses the method of claim 1, further comprising:

receiving the prerequisites on the client device (McGuire et al. disclose the client executing the comparison of its resources against prerequisites and sending the needed list to the server - Column 4, lines 21-27);

determining whether the client device has the prerequisites, wherein any of the prerequisites that the client device does not have represent the resource limitations (McGuire et al. disclose the client executing the comparison of its resources against prerequisites and sending the needed list to the server - Column 4, lines 21-27); and

sending the response to the server, wherein the response includes the resource limitations (McGuire et al. disclose the client executing the comparison of its resources against prerequisites and sending the needed list to the server - Column 4, lines 21-27).

The motivation and obviousness arguments are the same as in Claim 1.

As to Claim 11, the combination of Clohessy et al. and McGuire et al. discloses the method of claim 10, further comprising loading the final set of OSGi bundles on the client device if the prerequisites are completely resolved (Clohessy et al. – Figure 4, elements 108 and 114 show loading the final set of OSGi bundles on the client device).

As to Claim 13, the combination of Clohessy et al. and McGuire et al. discloses the method of claim 10, wherein the prerequisites comprise at least one item selected from a group consisting of a service, a package and a computer resource needed by client device (Clohessy et al. - Page 2, paragraphs 0024 and 0025 disclose the prerequisite resources being flash memory and RAM, which are at least one item selected from the group consisting of a service, a package and a computer resource, i.e. computer resources).

As to Claim 14, the combination of Clohessy et al. and McGuire et al. discloses the method of claim 10, wherein the method is applied in the presence of a low bandwidth or high cost connection between the server and the client device (Clohessy et al. – Page 1, paragraph 0002 recites that the client device has limited system resources which would include bandwidth related resources such as threads, sockets, memory, RAM, etc. Paragraph 0003 further recites that the client device requires frequent loading and unloading due to the narrow bandwidth as compared to a desktop PC).

As to Claim 15, the combination of Clohessy et al. and McGuire et al. discloses the method of claim 10, further comprising:

receiving the prerequisites on the client device (McGuire et al. disclose the client executing the comparison of its resources against prerequisites and sending the needed list to the server - Column 4, lines 21-27);

determining whether the client device has the prerequisites, wherein any of the prerequisites that the client device does not have represent the resource limitations (McGuire et al. disclose the client executing the comparison of its resources against prerequisites and sending the needed list to the server - Column 4, lines 21-27); and

sending the response to the server, wherein the response includes the resource limitations (McGuire et al. disclose the client executing the comparison of its resources against prerequisites and sending the needed list to the server - Column 4, lines 21-27).

The motivation and obviousness arguments are the same as in Claim 1.

As to Claim 17, the combination of Clohessy et al. and McGuire et al. discloses the system of claim 16, wherein the prerequisite resolution system recursively resolves the prerequisites (Clohessy et al. – Figure 4 shows the recursive path used to resolve prerequisites, 104-106-108-109-110-112-104-etc. until 114 or END).

As to Claim 18, the combination of Clohessy et al. and McGuire et al. discloses the system of claim 16, further comprising a bundle loading system for loading the final set of OSGi bundles on the client device if the prerequisites are completely resolved (Clohessy et al. – Figure 4, elements 108 and 114 show loading the final set of OSGi bundles on the client device).

As to Claim 20, the combination of Clohessy et al. and McGuire et al. discloses the system of claim 16, wherein the prerequisites comprise at least one item selected from a group consisting of a service, a package and a computer resource needed by client device (Clohessy et al. – Page 2, paragraphs 0024 and 0025 recite the prerequisite resources being flash memory and RAM, which are at least one item selected from the group consisting of a service, a package and a computer resource, i.e. computer resources).

As to Claim 21, the combination of Clohessy et al. and McGuire et al. discloses the system of claim 16, further comprising a response caching system for caching information derived from the response on the server (McGuire et al. discloses server caching – Column 13, lines 35-38).

The motivation and obviousness arguments are the same as in Claim 1.

As to Claim 22, the combination of Clohessy et al. and McGuire et al. discloses the system of claim 16, wherein the final set of OSGi bundles includes OSGi bundles that are identified from a repository accessed by the server (Clohessy et al. – Page 4, paragraphs 0042 and 0043 disclose the process of loading OSGi bundles residing on the server to the client).

As to Claim 23, the combination of Clohessy et al. and McGuire et al. discloses the system of claim 16, further comprising:

an analysis system for determining whether the client has the prerequisites, wherein any prerequisites that the client device does not have are identified as the resource limitations (McGuire et al. disclose the client executing the comparison of its resources against prerequisites and sending the needed list to the server - Column 4, lines 21-27); and

a response system for sending the response from the client device to the server (McGuire et al. discloses the server sending the necessary files to the client based on a response from the client on resource deficiency - Column 4, lines 30-37).

The motivation and obviousness arguments are the same as in Claim 1.

As to Claim 26, the combination of Clohessy et al. and McGuire et al. discloses the program product of claim 25, wherein the program code for resolving recursively resolves the prerequisites (Clohessy et al. – Figure 4 shows the recursive path used to resolve prerequisites, 104-106-108-109-110-112-104-etc. until 114 or END).

As to Claim 27, the combination of Clohessy et al. and McGuire et al. discloses the program product of claim 25, further comprising program code for loading the final set of OSGi bundles on the client device if the prerequisites are completely resolved (Clohessy et al. – Figure 4, elements 108 and 114 show loading the final set of OSGi bundles on the client device).

As to Claim 29, the combination of Clohessy et al. and McGuire et al. discloses the program product of claim 25, wherein the prerequisites comprise at least one item selected from a group consisting of a service, a package and a computer resource needed by client device (Clohessy et al. - Page 2, paragraphs 0024 and 0025 recite the prerequisite resources being flash memory and RAM, which are at least one item

selected from the group consisting of a service, a package and a computer resource, i.e. computer resources).

As to Claim 30, the combination of Clohessy et al. and McGuire et al. discloses the program product of claim 25, further comprising program code for caching the information derived from the response on the server (McGuire et al. discloses server caching – Column 13, lines 35-38).

As to Claim 31, the combination of Clohessy et al. and McGuire et al. discloses the program product of claim 25, wherein the final set of OSGi bundles includes OSGi bundles that are identified from a repository accessed by the server (Clohessy et al. – Page 4, paragraphs 0042 and 0043 recite the process of loading OSGi bundles residing on the server to the client).

As to Claim 32, the combination of Clohessy et al. and McGuire et al. discloses the program product of claim 25, further comprising:

program code for determining whether the client has the prerequisites, wherein any prerequisites that the client device does not have are identified as the resource limitations (McGuire et al. disclose the client executing the comparison of its resources against prerequisites and sending the needed list to the server - Column 4, lines 21-27); and

program code for sending the response from the client device to the server
McGuire et al. discloses the server sending the necessary files to the client based on a response from the client on resource deficiency - Column 4, lines 30-37).

The motivation and obviousness arguments are the same as in Claim 1.

7. Claims 4, 12, 19 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2003/0023661 A1 (Clohessy et al.) as applied to claims 3, 18 and 27 above, and further in view of US 2003/0131226 A1 (Spencer et al.).

As to Claim 4, the combination of Clohessy et al. and McGuire et al. disclose the method of claim 3, wherein the loading comprises the server instructing the client device to load the final set of OSGi bundles (Clohessy et al. – Figure 4, elements 108 and 114 show loading the final set of OSGi bundles on the client device) .

The combination of Clohessy et al. and McGuire et al. do not disclose in a particular order, but Spencer et al. disclose in a particular order (Spencer et al. – Page 1, paragraph 0004 discloses downloading components in a particular order).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the method of downloading in a particular order taught by Spencer et al., with the server instructing the client device to load the final set of OSGi bundles taught by the combination of Clohessy et al. and McGuire et al., in order

to load components according to whether they that require the presence of others on the user's device (Spencer et al. – Page 1, paragraph 0004).

As to Claim 12, the combination of Clohessy et al. and McGuire disclose the method of claim 11, wherein the loading comprises the server instructing the client device to load the final set of OSGi bundles (Clohessy et al. – Figure 4, elements 108 and 114 show loading the final set of OSGi bundles on the client device).

The combination of Clohessy et al. and McGuire et al. does not disclose in a particular order, but Spencer et al. disclose in a particular order (Spencer et al. – Page 1, paragraph 0004 recites downloading components in a particular order).

The motivation and obviousness arguments are the same as in Claim 4.

As to Claim 19, the combination of Clohessy et al. and McGuire et al. disclose the system of claim 18, wherein the bundle loading system comprises an instruction passing system for instructing the client device to load the final set of OSGi bundles (Clohessy et al. – Figure 4, elements 108 and 114 show loading the final set of OSGi bundles on the client device).

The combination of Clohessy et al. and McGuire et al. do not disclose in a particular order, but Spencer et al. disclose in a particular order (Spencer et al. – Page 1, paragraph 0004 recites downloading components in a particular order).

The motivation and obviousness arguments are the same as in Claim 4.

As to Claim 28, the combination of Clohessy et al. and McGuire et al. disclose the program product of claim 27, wherein the program code for loading comprises program code for instructing the client device to load the final set of OSGi bundles (Clohessy et al. – Figure 4, elements 108 and 114 show loading the final set of OSGi bundles on the client device).

The combination of Clohessy et al. and McGuire et al. do not disclose in a particular order, but Spencer et al. disclose in a particular order (Spencer et al. – Page 1, paragraph 0004 recites downloading components in a particular order).

The motivation and obviousness arguments are the same as in Claim 4.

8. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Clohessy et al. and McGuire et al. as applied to claim 16 above, and further in view of US 2005/0004974 A1 (Sharma et al.).

As to Claim 24, the combination of Clohessy et al. and McGuire et al. disclose the system of claim 16.

The combination of Clohessy et al. and McGuire et al. do not disclose wherein the system uses SyncML DM protocol for communication between the client device and the server, but Sharma et al. disclose wherein the system uses SyncML DM protocol for communication between the client device and the server (Sharma et al. – Page 9,

paragraphs 0097 and 0099 recite the use of SyncML Device Management and OSGi to communicate between client and server).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the use of SyncML Device Management taught by Sharma et al., with the communication between client and server taught by the combination of Clohessy et al. and McGuire et al.

One of ordinary skill in the art at the time the invention was made would have been motivated to explicitly support the ability to change service settings on a mobile device and to be able to download services to it (Sharma et al. – Page 9, paragraph 0099).

Examiner Notes

9. Examiner recommends being more specific about what “client device resources” are in independent form.
10. The aforementioned recommendation(s) does not necessarily indicate allowable subject matter. Further search and/or reconsideration may be required depending on any response. The recommendation(s) is presented to assist in advancing prosecution. Any decision on whether the aforementioned recommendations overcome the prior art will need to be determined after seeing any proposed amendments and/or arguments.

Conclusion

THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RICHARD G. KEEHN whose telephone number is (571)270-5007. The examiner can normally be reached on Monday through Thursday, 8am - 6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on 571-272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RGK

/YASIN BARQADLE/
Primary Examiner, Art Unit 2456